

COKE PLANTS IN THE UNITED STATES ON DECEMBER 31, 1958

BY JOSEPH A. DECARLO AND MAXINE M. OTERO

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by

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SUMMARY AND INTRODUCTION

This publication presents statistical data on oven- and beehive-coke plants in the United States. Information on the carbonizing capacity of the coke industry is important because of the close relationship between the coke industry and most of the other basic industries of our country. Coke is an essential raw material in pig-iron production; also, coal-chemical materials are used to make fertilizers, paints, plastics, synthetic rubber, explosives, detergents, nylon, pharmaceuticals, dyes, and many other useful products necessary to sustain and improve the high standards of living in our country.

Oven-coke plants in the United States on December 31, 1958, are tabulated in table 1. This tabular presentation shows the location, classification, number and type of ovens, annual coke capacity, coal chemicals produced, and name and address of parent company for each individual coke plant. About 86 percent of the capacity of slot-type coke ovens in the United States is owned by iron and steel companies. In most of these plants the coke ovens are integrated with the blast furnaces to facilitate transportation of raw materials for steel making. This has resulted in large coke plants, and the average annual coke capacity of "furnace" plants in 1958 was 1.3 million tons. Nonfurnace or "merchant" plants include coke plants associated with chemical operations, gas utilities, as well as coke plants that produce metallurgical, industrial, and residential-heating grades of coke and coal-chemical materials for sale on the open market. These plants ordinarily are not as large as furnace plants, and annual coke capacity of merchant plants in 1958 averaged only 500 thousand tons. At the end of 1958 there were 55 furnace plants and 22 merchant plants.

The number of new slot-type coke ovens constructed and placed in operation in 1958 was the highest since 1953 and, after allowance for the ovens abandoned during the year, enabled the oven-coke industry to finish the year with the largest number of operable ovens on record. Most of the new ovens (808) that started producing coke were rebuilds or replacements of wornout ovens and only 117 represented additional capacity. Although coke-oven operators and builders have studied and considered the feasibility of building huge coke ovens, size of individual slots has been pretty well standardized. A calculation of the average size for all ovens constructed since 1954 showed that the composite was as follows: length, 39 feet; height, 12 feet; width, 18 inches; coal capacity per charge, 16 tons. Of the 461 ovens abandoned, 3 were blanked off permanently in a battery that was still operating at the end of the year, 140 were permanently abandoned, and 318 were dismantled for future rebuilding.

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Ovens in existence at the end of the year, shown in tables 2 and 3, include only operable ovens and do not include (1) any ovens that were blanked off or retired permanently in batteries that were operating on December 31, 1958, and (2) ovens under construction. For this reason the number of ovens at furnace plants in this report differs from the number published for the same group by the American Iron and Steel Institute. Specifically the differences were in Alabama and Colorado, where a few ovens were blanked off in operating batteries, and in California, where two batteries of new ovens scheduled for completion in 1958 were not finished and were still under construction at the end of the year.

The expansion program, started in the early 1950's in the oven-coke segment of the coke industry, was nearly completed in 1958 and only 149 new ovens, the smallest number in 3 years, were under construction at the close of the year. As a result of the recent construction and modernization program at furnace plants, coke ovens were in the best shape in many years and approximately 72 percent of the active ovens at the end of 1958 were less than 20 years old. Also, the average age of coke ovens at furnace plants dropped from 19 years in 1950 to 13 years in 1958.

Coke ovens at merchant plants were getting progressively older, however, because little new construction was done in the same period. At the end of 1958 only 32 percent of ovens at merchant plants were less than 20 years old and average ages of the ovens increased from 24 years in 1950 to 31 years in 1958.

Table 7 shows chronologically ovens constructed, abandoned, and in existence at the end of each year at furnace and merchant plants from the beginning of the oven-coke industry in the United States.

In the past several years there has been an acceleration in the rate at which beehive plants have closed permanently. Since World War I beehive ovens have served as a marginal source of supply of metallurgical coke. For this reason the number of beehive plants active in subsequent years fluctuated widely, depending on demand for blast-furnace fuel. During World War II, more than 100 plants produced beehive coke. Many shut down following the war but were reactivated during the Korean conflict. Since the Korean War, however, the iron and steel companies have increased the carbonizing capacity of their slot-type ovens, and demand for beehive coke decreased. In addition, the sharp recession in industrial activity in 1958 further reduced the need for beehive coke, and only 14 out of 58 of the plants that reported that they had operable beehive ovens in 1958 were active throughout the year.

The oven-coke industry is a major source of chemical raw materials. Most of the basic coal-chemical materials (ammonia, crude tar, and crude light oil) are processed by the coke-producing companies into many products. Thus the ammonia is converted into ammonium sulfate, di- and mono-ammonium phosphate, or it may be recovered as an aqueous solution known as ammonia liquor. Some of the coke plants operate tar-distilling equipment and make creosote oil, crude chemical oil (tar acid oil), naphthalene, cresols, and pitch. Nearly all of the plants

refine the crude light oil into benzene, toluene, xylene, and solvent naphtha and naphthalene. In this report only products made by the coke-producing companies as part of their coke-plant operations are included. Similar products produced at chemical-processing plants, petroleum refineries, and tar distilleries operated independently from coke ovens are shown in the United States Tariff Commission annual report, Synthetic Organic Chemicals, United States Production and Sales in 1958.

Coal-chemical materials produced at individual coke plants in 1958 are designated as follows:

- | | |
|--|---------------------------------|
| 1 - Ammonium sulfate. | 15 - Pitch coke. |
| 2 - Ammonia liquor. | 16 - Crude light oil. |
| 3 - Ammonium thiocyanate. | 17 - Benzene. |
| 4 - Diammonium phosphate. | 18 - Toluene. |
| 5 - Monoammonium phosphate. | 19 - Xylene. |
| 6 - Crude coal tar. | 20 - Solvent naphtha. |
| 7 - Creosote oil. | 21 - Intermediate light oil. |
| 8 - Crude chemical oil (tar acid oil). | 22 - Naphthalene, under 74° C. |
| 9 - Sodium phenolate. | 23 - Naphthalene, 74° to 79° C. |
| 10 - Phenol (industrial grades). | 24 - Pyridine, crude bases. |
| 11 - Cresols. | 25 - Pyridine, refined (2° C.) |
| 12 - Cresylic acid. | 26 - Picolines. |
| 13 - Pitch of tar. | 27 - Sulfur. |
| 14 - Refined tar, including road tar. | |

ACKNOWLEDGMENT

The information used in this publication was obtained from annual reports voluntarily furnished by all coke-producing companies in the United States. Their cooperation is deeply appreciated by the Bureau of Mines.

TABLE 1. - Oven-coke plants in the United States on December 31, 1958

Name and address of company	Location of plant	Classification of plant	Number and type of ovens	Annual coke capacity (net tons)	Coal-chemical materials produced
ALABAMA					
Alabama Byproducts Corp. P. O. Box 354 Birmingham 1, Ala.	Tarrant	Merchant	75 Koppers 128 Koppers-Becker	875,000	1,6,9,16,17,18, 19,20,21,22
DeBardeleben Coal Corp. 2201 First Ave., North Birmingham 3, Ala.	Holt	do.	60 Semet-Solvay	200,000	1,6,8,14,16,21
Republic Steel Corp. Republic Bldg. Cleveland 1, Ohio	Gadsden Thomas	Furnace do.	37 Koppers 65 Wilputte 65 Koppers-Becker	565,000 375,000	1,6,16,17,18, 19,20,22 1,6,16,17,18, 19,22
United States Pipe & Foundry Co. 3300 First Ave., North Birmingham 2, Ala.	Birmingham	do.	120 Semet-Solvay 120 Koppers-Becker	1,012,500	1,2,6,16,17,18, 19,21,22,24
United States Steel Corp. 525 William Penn Pl. Pittsburgh 30, Pa.	Fairfield	do.	499 Koppers-Becker 63 Otto	3,096,900	1,6,7,13,16,17, 18,19,20,23,24
Woodward Iron Co. Woodward, Ala.	Woodward	do.	226 Koppers 30 Koppers-Becker	797,500	1,6,16,17,18, 19,20,23
CALIFORNIA					
Kaiser Steel Corp. 1924 Broadway Oakland 12, Calif.	Fontana	Furnace	225 Koppers-Becker 1790 Koppers-Becker	1,069,500 433,600	1,4,6,10,16,17, 18,19,20
COLORADO					
Colorado Fuel & Iron Corp. P. O. Box 316 Pueblo, Colo.	Pueblo	Furnace	100 Koppers 146 Koppers-Becker	1,011,000	4,6,7,13,16,17, 18,19,20
CONNECTICUT					
Connecticut Coke Co. P. O. Box 1820 New Haven, Conn.	New Haven	Merchant	70 Koppers-Becker	410,000	1,6,16,21

ILLINOIS

General Motors Corp.	Merchant	31 Koppers-Becker	67,000	6
General Motors Bldg. Detroit 2, Mich.	Furnace	76 Koppers-Becker	450,000	1,6,16,17,18, 19,21,22
Granite City Steel Co. 20th & Madison Ave. Granite City, Ill.	do.	100 Wilputte	558,000	1,6,16
Interlake Iron Corp. 1900 Union Commerce Bldg. Cleveland 14, Ohio	do.	155 Wilputte	750,000	1,6,16,17,18, 19,20
International Harvester Co. 180 North Michigan Ave. Chicago 17, Ill.	do.	75 Wilputte	460,000	1,6,9,16,17,18, 19,20,22,23,24
Republic Steel Corp. Republic Bldg. Cleveland 1, Ohio	do.	70 Koppers-Becker	420,000	1
Youngstown Sheet & Tube Co. P. O. Box 900 Youngstown 1, Ohio				

INDIANA

Citizens Gas & Coke Utility 2020 North Meridian St. Indianapolis 9, Ind.	Merchant	41 Koppers-Becker 127 Wilputte	516,700	1,6
Indiana Gas & Chemical Corp. 13th & Hulman Sts. Terre Haute, Ind.	do.	60 Koppers	175,000	2,6,16,17,18, 19,20,22
Inland Steel Co. 30 West Monroe St. Chicago 3, Ill.	Furnace	531 Koppers-Becker	2,847,000	1,6,9,16,17,18, 19,24
United States Steel Corp. 525 William Penn Pl. Pittsburgh 30, Pa.	do.	280 Koppers 357 Koppers-Becker 525 Wilputte	5,654,500	1,6,13,16,17, 18,19,20,23
Youngstown Sheet & Tube Co. P. O. Box 900 Youngstown 1, Ohio	do.	150 Koppers-Becker 120 Semet-Solvay	1,572,000	2,6,9,16,17,18, 19,20

See footnote at end of table.

TABLE 1. - Oven-coke plants in the United States on December 31, 1958 (Con.)

Name and address of company	Location of plant	Classification of plant	Number and type of ovens	Annual coke capacity (net tons)	Coal-chemical materials produced
<u>KENTUCKY</u> Allied Chemical Corp. 40 Rector St. New York 6, N. Y.	Ashland	Merchant	120 Semet-Solvay 76 Wilputte	1,185,200	2,6,8,16
<u>MARYLAND</u> Bethlehem Steel Co. Bethlehem, Pa.	Sparrows Point	Furnace	758 Koppers-Becker	4,174,000	1,6,16,17,18, 19,21,22,24
<u>MASSACHUSETTS</u> Eastern Gas & Fuel Associates 250 Stuart St. Boston 16, Mass.	Everett	Merchant	108 Koppers-Becker	665,000	1,3,6,16,17,18, 19,20,23
<u>MICHIGAN</u> Allied Chemical Corp. 40 Rector St. New York 6, N. Y. Ford Motor Co. The American Road Dearborn, Mich. Great Lakes Steel Corp. Ecorse, Detroit 29, Mich. Wyandotte Chemicals Corp. 1609 Biddle Ave. Wyandotte, Mich.	Detroit Rouge Zug Island Wyandotte	Merchant Furnace do Merchant	216 Semet-Solvay 220 Koppers-Becker 146 Semet-Solvay 148 Wilputte 39 Koppers-Becker	643,500 1,449,200 2,103,000 210,000	2,6,8,16 4,6,16,22 1,6,8,9,16,17, 18,19,22 2,6,16,17,18,19
<u>MINNESOTA</u> Interlake Iron Corp. 1900 Union Commerce Bldg. Cleveland 14, Ohio Koppers Co., Inc. Koppers Bldg. Pittsburgh 19, Pa. United States Steel Corp. Rockefeller Bldg. Cleveland 13, Ohio	West Duluth St. Paul Duluth	Furnace Merchant Furnace	41 Koppers-Becker 20 Wilputte 65 Koppers 115 Koppers-Becker	310,000 116,900 583,600	1,6 6 1,6

MISSOURI

Great Lakes Carbon Corp.
18 East 48th St.

New York 17, N. Y.

NEW JERSEY

Koppers Co., Inc.
Koppers Bldg.
Pittsburgh 19, Pa.
Public Service Electric & Gas Co.
80 Park Pl.

Newark 1, N. J.

NEW YORK

Allied Chemical Corp.
40 Rector St.
New York 6, N. Y.
Bethlehem Steel Co.
Bethlehem, Pa.

Donner-Hanna Coke Corp.
Box A, South Park Station
Buffalo 20, N. Y.

OHIO

Allied Chemical Corp.
40 Rector St.
New York 6, N. Y.
Armco Steel Corp.
703 Curtis St.
Middletown, Ohio
Detroit Steel Corp.
Detroit, Mich.
Diamond Alkali Co.
300 Union Commerce Bldg.
Cleveland 14, Ohio
Interlake Iron Corp.
1900 Union Commerce Bldg.
Cleveland 14, Ohio
Jones & Laughlin Steel Corp.
3 Gateway Center
Pittsburgh 30, Pa.

See footnote at end of table.

St. Louis	Merchant	45 Koppers 40 Simon-Carves	301,700	6,16,17,18,19, 20
Kearny	Merchant	165 Koppers 65 Koppers-Becker	1,100,000	1,5,6,16,21,22
Camden	do.	111 Koppers-Becker	400,000	1,6
Buffalo	Merchant	120 Semet-Solvay	900,100	2,6,16
Lackawanna	Furnace	171 Koppers-Becker 60 Semet-Solvay 228 Wilputte	2,514,000	1,6,8,9,13,16, 17,18,19,21
Buffalo	do.	186 Koppers 66 Koppers-Becker	1,169,000	1,6,9,16,17,18, 19,20,22,25
Ironton	Merchant	68 Semet-Solvay 100 Wilputte	1,124,200	2,6,8,16,24
Hamilton Middletown	Furnace do.	110 Koppers-Becker 76 Wilputte	612,000 550,000	1,6,9,16,22 1,6,9,16,17,18, 19,20,21
Portsmouth	do.	108 Semet-Solvay	500,000	2,6,7,13,16,17, 19,22
Painesville	Merchant	46 Koppers-Becker	176,300	2,6,16,17,18, 19
Toledo	Furnace	94 Koppers 57 Wilputte	518,000	1,6,16,17,18, 19,22,24
Cleveland	do.	100 Semet-Solvay	324,000	Idle

TABLE 1. - Oven-coke plants in the United States on December 31, 1958 (Con.)

Name and address of company	Location of plant	Classification of plant	Number and type of ovens	Annual coke capacity (net tons)	Coal-chemical materials produced
OHIO (Con.)					
Republic Steel Corp. Republic Bldg. Cleveland 1, Ohio	Cleveland	Furnace	354 Koppers-Becker	2,085,000	1,6,16,17,18, 19,20,22,24
	Massillon	do.	31 Koppers-Becker	188,000	1,6,16,22
	Warren	do.	80 Koppers	870,000	1,6,16,17,18, 19,20,22,23
	Youngstown	do.	61 Wilputte		1,6,16,17,18,19, 20,22,24
			103 Koppers	1,000,000	
			69 Koppers-Becker		
	Cleveland	do.	180 Koppers	834,400	1,6,16,17,18, 19,20,22
United States Steel Corp. Rockefeller Bldg. Cleveland 13, Ohio	Lorain	do.	177 Koppers-Becker	1,869,000	1,6,10,16,17, 18,19,20,23
	Campbell	do.	236 Wilputte		
			153 Koppers		
			228 Wilputte	2,012,000	1,6,16,17,18, 19
Youngstown Sheet & Tube Co. P. O. Box 900 Youngstown 1, Ohio	Youngstown	do.	84 Koppers	372,000	1,6,16
PENNSYLVANIA					
Alan Wood Steel Co. Conshohocken, Pa.	Swedeland	Furnace	110 Koppers	600,000	1,6,9,16,17,18, 19,20,22,24
	Bethlehem	do.	41 Koppers-Becker		
			212 Koppers	2,136,000	1,6,16,17,18, 19,22
	Johnstown	do.	284 Koppers-Becker		
			77 Koppers-Becker		
			88 Semet-Solvay	1,836,000	1,6,8,13,16,17, 18,19,21
			151 Wilputte		
	Steelton	do.	130 Koppers-Becker	768,000	1,6,16
	Midland	do.	100 Koppers		
			113 Koppers-Becker	877,200	1,6,8,9,13,16, 17,18,19,21
Crucible Steel Co. of America P. O. Box 88 Pittsburgh 30, Pa.	Erie	do.	58 Wilputte	267,000	1,6,9,16,17,18, 19,20,22
Interlake Iron Corp. 1900 Union Commerce Bldg. Cleveland 14, Ohio					
Jones & Laughlin Steel Corp. 3 Gateway Center Pittsburgh 30, Pa.	Aliquippa	do.	352 Koppers-Becker	2,190,000	1,6,9,16,17,18, 19,20
	Pittsburgh	do.	300 Koppers		
			79 Koppers-Becker	1,301,000	1,6,7,8,9,13, 16,25,26
			1/59 Wilputte	360,000	

<u>PENNSYLVANIA (Con.)</u>					
Eastern Gas & Fuel Associates	Philadelphia	Merchant	74 Koppers-Becker	490,000	1,6,16,21
4501 Richmond St.	Chester	do.	25 Koppers-Becker	118,000	6,16
Philadelphia 37, Pa.	Neville Island	Furnace	140 Koppers-Becker	1,000,000	1,6,7,10,11,12, 13,14,16,17,18, 19,20,23,25,26
Philadelphia Electric Co.	Monessen	do.	93 Koppers-Becker	644,000	1,6,7,8,9,13, 16,17,18,21,22
1000 Chestnut St.	Clairton	do.	469 Koppers 592 Koppers-Becker 506 Wilputte 174 Wilputte	7,833,800 1,039,300	1,6,7,10,11,12, 13,16,17,18,19, 20,23,24,25,26 1,6,9,16,17,18, 19,20,22
Philadelphia 5, Pa.	Fairless	do.			
Pittsburgh Coke & Chemical Co.	Alton Park	Furnace	24 Semet-Solvay 20 Wilputte	264,000	1,6,16,17,18, 19,22
2100 Grant Bldg.					
Pittsburgh 19, Pa.					
Pittsburgh Steel Co.					
1600 Grant Bldg.					
Pittsburgh 19, Pa.					
United States Steel Corp.					
525 William Penn Pl.					
Pittsburgh 30, Pa.					
<u>TENNESSEE</u>					
Tennessee Products & Chemical Corp. ...					
P. O. Box 9					
Nashville, Tenn.					
<u>TEXAS</u>					
Armco Steel Corp.	Houston	Furnace	62 Koppers-Becker	394,000	1,6,16,17,18, 19,21
703 Curtis St.					
Middletown, Ohio					
Lone Star Steel Co.	Dangerfield	do.	78 Koppers-Becker	438,000	1,6,16,17,18, 19,20
P. O. Box 12226					
Dallas 25, Texas					
<u>UTAH</u>					
United States Steel Corp.	Geneva	Furnace	252 Koppers-Becker 56 Koppers-Becker	1,094,800 250,900	1,6,9,16,17, 18,19,20,22
525 William Penn Pl.	Ironton	do.			
Pittsburgh 30, Pa.					
<u>WEST VIRGINIA</u>					
E. I. du Pont de Nemours & Co.	Belle	Merchant	71 Wilputte	370,000	Essentially all coal chemicals consumed by co. 1,6,16,27
du Pont Bldg.					
Wilmington 98, Del.					
Olin Mathieson Chemical Corp.	Morgantown	do.	74 Wilputte	416,100	
Mathieson Bldg.					
Baltimore 3, Md.					

See footnote at end of table.

TABLE 1. - Oven-coke plants in the United States on December 31, 1958 (Con.)

Name and address of company	Location of plant	Classification of plant	Number and type of ovens	Annual coke capacity (net tons)	Coal-chemical materials produced
<u>WEST VIRGINIA (Con.)</u>					
National Steel Corp.	Weirton	Furnace	294 Koppers-Becker	1,900,000	1,6,8,9,13,16,17,18,19,20,24
Weirton, W. Va.	Fairmont	do.	60 Koppers	237,000	1,6,9,16,17,18,19,20,22
Sharon Steel Corp.	East Steubenville	do.	94 Koppers	} 1,720,000	1,6,9,16,17,18,19,20,24
Sharon, Pa.			220 Koppers-Becker		
Wheeling Steel Corp.					
Wheeling, W. Va.					
<u>WISCONSIN</u>					
Milwaukee Solvay Coke Co.	Milwaukee	Merchant	100 Koppers	} 570,100	2,6,16,17,18,19,20
311 East Greenfield Ave.			100 Semet-Solvay		
Milwaukee, Wis.					
Total in existence	-	-	16,244	82,497,900	-
At merchant plants	-	-	2,420	11,030,800	-
At furnace plants	-	-	13,824	71,467,100	-
Total under construction	-	-	149	793,600	-
At merchant plants	-	-	-	-	-
At furnace plants	-	-	149	793,600	-
1/ Under construction.					

TABLE 2. - Slot-type coke ovens completed and abandoned in the United States in 1958 and number in existence at end of year, by States

State	Plants in existence Dec. 31	Ovens						Abandoned during year 1/	Under construction Dec. 31	
		In existence Dec. 31		New		Number	Annual coke capacity (net tons)		Number	Annual coke capacity (net tons)
		Number	Annual coke capacity (net tons)	Number	Annual coke capacity (net tons)					
Alabama	7	1,488	6,921,900	200	1,033,700	73	.....	.....	.....	
California	1	225	1,069,500	.....	.....	.....	.....	90	433,600	
Colorado	1	246	1,011,000	31	169,000	3	.....	.....	.....	
Connecticut	1	70	410,000	.....	.....	.....	.....	.....	.....	
Illinois	6	507	2,705,000	.....	.....	140	.....	.....	.....	
Indiana	5	2,191	10,765,200	174	920,200	74	.....	.....	.....	
Kentucky	1	196	1,185,200	.....	.....	.....	.....	.....	.....	
Maryland	1	758	4,174,000	126	734,000	120	.....	.....	.....	
Massachusetts	1	108	665,000	.....	.....	.....	.....	.....	.....	
Michigan	4	769	4,405,700	.....	.....	.....	.....	.....	.....	
Minnesota	3	241	1,010,500	.....	.....	.....	.....	.....	.....	
Missouri	1	85	301,700	.....	.....	.....	.....	.....	.....	
New Jersey	2	341	1,500,000	.....	.....	.....	.....	.....	.....	
New York	3	831	4,583,100	.....	.....	.....	.....	.....	.....	
Ohio	15	2,515	13,034,900	178	998,600	51	.....	.....	.....	
Pennsylvania	14	4,168	21,100,300	99	493,900	.....	.....	59	360,000	
Tennessee	1	44	264,000	.....	.....	.....	.....	.....	.....	
Texas	2	140	832,000	.....	.....	.....	.....	.....	.....	
Utah	2	308	1,345,700	.....	.....	.....	.....	.....	.....	
West Virginia	5	813	4,643,100	.....	.....	.....	.....	.....	.....	
Wisconsin	1	200	570,100	.....	.....	.....	.....	.....	.....	
Total 1958	77	16,244	82,497,900	808	4,349,400	461	.....	149	793,600	
At merchant plants	22	2,420	11,030,800	.....	.....	.....	.....	.....	.....	
At furnace plants	55	13,824	71,467,100	808	4,349,400	461	.....	149	793,600	
Total 1957	78	2/ 15,897	80,299,400	560	2,910,200	2/ 586	.....	611	3,332,700	
1/ Includes ovens dismantled for rebuilding. 2/ Revised figure.										

1/ Includes ovens dismantled for rebuilding. 2/ Revised figure.

TABLE 3. - Potential maximum annual coke capacity of all oven-coke plants in existence in the United States, 1949 and 1954-58

Year	Merchant plants			Furnace plants			Total		
	In existence Dec. 31	Ovens		In existence Dec. 31	Ovens		In existence Dec. 31	Plants	Change from 1949 (percent)
		Plants	Potential maximum annual coke capac- ity (net tons)		Plants	Potential maximum annual coke capac- ity (net tons)			
1949	30	3,057	14,209,200	55	12,047	59,500,900	85	15,104	73,710,100
1954	23	2,458	10,686,300	58	13,433	67,909,300	81	15,891	78,595,600
1955	23	2,482	11,220,200	58	13,557	68,455,300	81	16,039	79,675,500
1956	22	2,424	11,009,600	57	13,499	68,955,500	79	15,923	79,965,100
1957	22	2,420	11,061,400	56	13,477	69,238,000	78	15,897	80,299,400
1958	22	2,420	11,030,800	55	13,824	71,467,100	77	16,244	82,497,900
1/ Revised figure.									
									Change from 1949 (percent)
									+6.6
									+8.1
									+8.5
									+8.9
									+11.9

TABLE 4. - Age of slot-type coke ovens in the United States on December 31, 1958 1/

Age	Merchant plants		Furnace plants		Total		
	Number	Annual coke capacity (net tons)	Number	Annual coke capacity (net tons)	Number	Percent of total	Annual coke capacity (net tons)
Under 5 years	24	148,900	2,341	12,453,300	2,365	14.6	12,602,200
From 5 to 10 years	257	1,347,400	3,598	19,650,000	3,855	23.7	20,997,400
From 10 to 15 years	170	706,400	1,805	9,838,500	1,975	12.2	10,544,900
From 15 to 20 years	315	1,850,500	2,242	12,021,100	2,557	15.7	13,871,600
From 20 to 25 years	97	418,200	1,053	5,973,900	1,150	7.1	6,392,100
From 25 to 30 years	46	240,000	132	750,600	178	1.1	990,600
From 30 to 35 years	472	2,384,100	323	1,590,200	795	4.9	3,974,300
From 35 to 40 years	150	500,100	719	3,008,800	869	5.3	3,508,900
40 years and over	889	3,435,200	1,611	6,180,700	2,500	15.4	9,615,900
Total	2,420	11,030,800	13,824	71,467,100	16,244	100.0	82,497,900
1/ Age dates from first entry into operation or from last date of rebuilding.							
1/ Age dates from first entry into operation or from last date of rebuilding.							

TABLE 5. - Number of slot-type coke ovens in the United States on December 31, 1958,
by States and kinds

State	Koppers	Koppers-Becker	Semet-Solvay	Wilputte	All others	Total
Alabama	338	842	180	65	1/ 63	1,488
California .....	.....	225	.....	.....	.....	225
Colorado	100	146	.....	.....	.....	246
Connecticut .....	.....	70	.....	.....	.....	70
Illinois .....	.....	177	.....	330	.....	507
Indiana	340	1,079	120	652	.....	2,191
Kentucky .....	.....	.....	120	76	.....	196
Maryland .....	.....	758	.....	.....	.....	758
Massachusetts .....	.....	108	.....	.....	.....	108
Michigan .....	.....	259	362	148	.....	769
Minnesota	65	156	.....	20	.....	241
Missouri	45	.....	.....	.....	2/ 40	85
New Jersey	165	176	.....	.....	.....	341
New York	186	237	180	228	.....	831
Ohio	694	787	276	758	.....	2,515
Pennsylvania	1,191	2,000	88	889	.....	4,168
Tennessee .....	.....	.....	24	20	.....	44
Texas .....	.....	140	.....	.....	.....	140
Utah .....	.....	308	.....	.....	.....	308
West Virginia	154	514	.....	145	.....	813
Wisconsin	100	.....	100	.....	.....	200
Total 1958	3,378	7,982	1,450	3,331	103	16,244
At merchant plants ...	510	738	684	448	40	2,420
At furnace plants	2,868	7,244	766	2,883	63	13,824
Total 1957	3,632	7,584	1,450	3,191	40	3/ 15,897

1/ Otto. 2/ Simon-Carves. 3/ Revised figure.

TABLE 6. - Number and capacity of coke ovens in the United States
on December 31, 1958, by kinds

Type	Number of ovens	Annual coke capacity (net tons)
Koppers	3,378	13,308,000
Koppers-Becker	7,982	43,776,100
Semet-Solvay	1,450	7,131,200
Wilputte	3,331	17,718,900
Simon-Carves	40	180,400
Otto	63	383,300
Total	16,244	82,497,900

TABLE 7. - Slot-type coke ovens constructed, abandoned, and in existence in the United States,
1893-1958

Year	Number of ovens constructed			Ovens abandoned			Ovens in existence, end of year		
	Merchant plants	Furnace plants	Total	Merchant plants	Furnace plants	Total	Merchant plants	Furnace plants	Total
1893 ...	12	.....	12	.....	.....	.....	12	.....	12
1894 ...	.....	.....	.....	.....	.....	.....	12	.....	12
1895 ...	.....	60	60	.....	.....	.....	12	60	72
1896 ...	13	75	88	.....	.....	.....	25	135	160
1897 ...	120	.....	120	.....	.....	.....	145	135	280
1898 ...	56	180	236	.....	.....	.....	201	315	516
1899 ...	400	100	500	.....	.....	.....	601	415	1,016
1900 ...	5	60	65	.....	.....	.....	606	475	1,081
1901 ...	80	.....	80	.....	.....	.....	686	475	1,161
1902 ...	151	357	508	.....	.....	.....	837	832	1,669
1903 ...	10	283	293	.....	.....	.....	847	1,115	1,962
1904 ...	286	711	997	.....	33	33	1,133	1,793	2,926
1905 ...	134	79	213	.....	4	4	1,267	1,868	3,135
1906 ...	185	301	486	.....	2	2	1,452	2,167	3,619
1907 ...	177	112	289	.....	.....	.....	1,629	2,279	3,908
1908 ...	.....	140	140	.....	25	25	1,629	2,394	4,023
1909 ...	.....	142	258	288	.....	288	1,457	2,536	3,993
1910 ...	116	49	89	.....	.....	.....	1,472	1/2,610	4,082
1911 ...	40	550	590	.....	4	4	1,472	3,156	4,628
1912 ...	.....	500	610	.....	26	26	1,582	3,630	5,212
1913 ...	186	332	518	.....	.....	.....	1,768	3,962	5,730
1914 ...	23	205	228	1	297	298	1,690	2/3,970	5,660
1915 ...	111	559	670	.....	92	92	1,801	4,437	6,238
1916 ...	132	870	1,002	.....	.....	.....	1,933	5,307	7,240
1917 ...	210	369	579	.....	.....	.....	2,143	5,676	7,819
1918 ...	164	1,636	1,800	.....	378	390	2,271	3/6,958	9,229
1919 ...	165	895	1,060	.....	146	146	2,436	7,707	10,143
1920 ...	110	934	1,044	.....	376	416	2,506	8,265	10,771
1921 ...	195	190	385	143	70	213	4/2,798	8,145	10,943
1922 ...	55	230	285	40	140	180	2,813	8,235	11,048
1923 ...	25	195	220	.....	224	224	2,838	8,206	11,044
1924 ...	74	672	746	330	47	377	2,582	8,831	11,413

1925	...	270	134	404	...	539	539	2,852	8,426	11,278
1926	...	240	537	777	145	199	199	3,127	8,584	11,711
1927	...	262	728	990	104	122	122	3,285	9,190	12,475
1928	...	197	242	439	176	199	199	3,306	9,233	12,539
1929	...	150	200	350	53	192	192	3,403	9,241	12,644
1930	...	268	265	533	242	164	164	3,429	9,342	12,771
1931	...	93	...	93	...	...	...	3,522	9,342	12,864
1932	...	87	...	87	2	140	140	3,607	9,202	12,809
1933	...	...	...	...	...	...	...	3,607	9,202	12,809
1934	...	...	138	...	...	90	90	3,607	9,250	12,857
1935	...	37	140	177	...	280	280	3,644	9,110	12,754
1936	...	49	163	212	18	143	161	3,675	9,130	12,805
1937	...	25	479	504	281	310	591	3,419	9,299	12,718
1938	...	12	149	161	19	181	200	3,412	9,267	12,679
1939	...	20	307	327	...	141	141	3,432	9,433	12,865
1940	...	3	...	3	...	245	245	3,435	9,188	12,623
1941	...	208	479	687	154	246	400	6/ 3,549	9,361	12,910
1942	...	62	361	423	30	...	30	3,581	9,722	13,303
1943	...	58	952	1,010	3	57	60	3,406	7/ 10,847	14,253
1944	...	65	503	568	127	114	241	3,344	11,236	14,580
1945	...	...	176	176	66	180	246	3,234	8/ 11,276	14,510
1946	...	84	157	241	39	218	257	3,205	9/ 11,289	14,494
1947	...	8	553	561	240	87	327	2,973	11,755	14,728
1948	...	...	583	583	4	168	172	10/ 2,983	10/ 12,156	15,139
1949	...	129	340	469	55	449	504	3,057	12,047	15,104
1950	...	67	485	552	88	586	674	2,962	11/ 12,020	14,982
1951	...	49	647	696	50	309	359	12/ 2,958	12/ 12,361	15,319
1952	...	40	907	947	217	441	658	2,781	12,827	15,608
1953	...	101	926	1,027	189	457	646	2,693	13,296	15,989
1954	...	...	633	633	235	631	866	2,458	13,298	15,756
1955	...	24	617	641	...	417	417	2,482	13,498	15,980
1956	...	...	361	361	58	360	418	2,424	13,499	15,923
1957	134	...	560	560	4	582	586	2,420	13,477	15,897
1958	...	...	808	808	...	461	461	2,420	13,824	16,244

1/ 25 ovens changed from Merchant to Furnace. 2/ 100 ovens changed from Merchant to Furnace.
3/ 24 ovens changed from Merchant to Furnace. 4/ 240 ovens changed from Furnace to Merchant.
5/ 180 ovens changed from Furnace to Merchant. 6/ 60 ovens changed from Furnace to Merchant.
7/ 230 ovens changed from Merchant to Furnace. 8/ 44 ovens changed from Merchant to Furnace.
9/ 74 ovens changed from Merchant to Furnace. 10/ 60 ovens changed from Merchant to Furnace and
74 ovens changed from Furnace to Merchant. 11/ 74 ovens changed from Merchant to Furnace.
12/ 74 ovens changed from Furnace to Merchant and 77 ovens changed from Merchant to Furnace.
13/ Revised figures.

TABLE 8. - Beehive-coke plants in the United States on December 31, 1958

Name and address of company	Name or location of plant	Number and type of ovens available 1/		Annual coke capacity (net tons)
		Machine drawn	Hand drawn	
<u>KENTUCKY</u>				
Blue Diamond Coal Co. P. O. Box 80 Knoxville, Tenn.	Hellier	193	.....	120,000
<u>PENNSYLVANIA</u>				
<u>FAYETTE COUNTY</u>				
Emerald Coal & Coke Co. 1914 Grant Bldg. Pittsburgh 19, Pa.	Alicia #1	400	.....	308,500
	Allison	395	.....	306,500
United States Steel Corp. 525 William Penn Pl. Pittsburgh 30, Pa.	Collier	389	.....	198,200
Bortz Coal Co. Union Trust Bldg. Uniontown, Pa.	Daugherty, Sapper, and Central	170	26	68,000
Bridgeview Coal Co. 97 East Main St. Uniontown, Pa.	Donald #2	240	.....	125,000
Phillips Coal & Coke Co. 24 Clark St. Uniontown, Pa.	Fairbank	60	.....	36,000
Pennsylvania Coal Co. 305 Union Trust Bldg. Uniontown, Pa.	Hoover #1 & 2	120	78	156,000
National Mines Corp. Weirton, W. Va.	Isabella	136	.....	120,000
Lindsey Coal Co. 602 Johnson Ave. Connellsville, Pa.	Jimtown	.....	20	8,400
Menallen Coke Co. P. O. Box 42 New Salem, Pa.	Kyle	247	.....	110,000
Ruane Coal & Coke Co. P. O. Box 485 Fairchance, Pa.	Laughead	60	.....	36,000
United States Steel Corp. 525 William Penn Pl. Pittsburgh 30, Pa.	Leisenring #2	497	.....	264,600
Eberly Coal & Coke Co. 510 Gallatin National Bank Bldg. Uniontown, Pa.	Oliver #2	214	16	120,000
United States Steel Corp. 525 William Penn Pl. Pittsburgh 30, Pa.	Phillips	354	.....	237,300
Leckrone Coal & Coke Co. R. D. #1 - Box 16 <u>McClellandtown, Pa.</u>	Puritan #1 & 2	114	.....	70,000
See footnote at end of table.				

TABLE 8. - Beehive-coke plants in the United States on December 31, 1958 (Con.)

Name and address of company	Name or location of plant	Number and type of ovens available 1/		Annual coke capacity (net tons)
		Machine drawn	Hand drawn	
<u>PENNSYLVANIA (Con.)</u>				
	<u>FAYETTE COUNTY</u> (Con.)			
Fayette Fuel Co. P. O. Box 472 Uniontown, Pa.	Redstone	143	.....	80,000
John J. Bobak P. O. Box 752 Uniontown, Pa.	Searights	.....	55	30,600
Menallen Coke Co. P. O. Box 42 New Salem, Pa.	Shamrock	108	.....	62,500
J. H. Hillman & Sons Co. 1914 Grant Bldg. Pittsburgh 19, Pa.	Tower Hill #2	254	.....	209,500
Ruane Coal & Coke Co. P. O. Box 485 Fairchance, Pa.	Wynn	170	.....	108,000
	<u>GREENE COUNTY</u>			
J. H. Hillman & Sons Co. 1914 Grant Bldg. Pittsburgh 19, Pa.	Poland	102	.....	74,300
	<u>INDIANA COUNTY</u>			
Rochester & Pittsburgh Coal Co. 655 Church St. Indiana, Pa.	Coral	158	.....	60,000
	Ernest	264	.....	132,000
Smith-Byrne Co., Inc. P. O. Box 106 Graceton, Pa.	Graceton	108	.....	30,000
Lucerne Coke Co. 812 Oliver St. Pittsburgh 22, Pa.	Lucerne	264	.....	216,000
	<u>WESTMORELAND COUNTY</u>			
King Coal & Coke Co. Brennen Bldg. Scottdale, Pa.	Arona, Trotter, and Whyel	150	.....	55,000
Eagle Coal Co. 121 North Main St. Greensburg, Pa.	Atlantic #2	120	.....	55,000
Stewart Coal & Coke Co. 118 North Main St. Greensburg, Pa.	Beatty #2 and Whitney	280	.....	168,000
C. W. Dillon Calumet, Pa.	Calumet	.....	110	36,000

See footnote at end of table.

TABLE 8. - Beehive-coke plants in the United States on December 31, 1958 (Con.)

Name and address of company	Name or location of plant	Number and type of ovens available 1/		Annual coke capacity (net tons)
		Machine drawn	Hand drawn	
<u>PENNSYLVANIA (Con.)</u>	<u>WESTMORELAND COUNTY</u> <u>(Con.)</u>			
Beatty Coal Co. 1st National Office Bldg. Latrobe, Pa.	Duquesne	.....	27	15,000
Kara Coal & Coke Co. R. D. #5 - Box 84 Greensburg, Pa.	Hester	44	.....	26,400
Kenallen Coal Co. 543 Locust Valley Road Greensburg, Pa.	Humphrey	90	.....	43,500
Pittsburgh Coal Co. P. O. Box 500 Library, Pa.	Jamison #2	400	.....	180,000
Westmoreland Mammoth Coal & Coke Co. Mammoth, Pa.	Mammoth #1	109	20	72,400
King Bros. Coal & Coke Co. Brennen Bldg. Scottdale, Pa.	Marguerite	180	17	144,000
George K. Brennen 207 Brennen Bldg. Scottdale, Pa.	Myers	.....	38	8,300
Eagle Coal Co. 121 North Main St. Greensburg, Pa.	Salem	225	.....	100,000
Carpentertown Coal & Coke Co. .. 1100 Union Trust Bldg. Pittsburgh 19, Pa.	Standard	277	.....	180,000
Hacker Coal & Coke Co. R. D. #3 Latrobe, Pa.	Trauger	.....	32	12,000
Hepler Coal & Coke Co. P. O. Box 95 Madison, Pa.	Whyel	31	4	21,600
<u>VIRGINIA</u>				
Wise Coal & Coke Co. Dorchester, Va.	Dorchester	270	.....	140,000
Christie Coal & Coke Co. P. O. Box 409 Norton, Va.	Esserville	.....	71	30,000

See footnote at end of table.

TABLE 8. - Beehive-coke plants in the United States on December 31, 1958 (Con.)

Name and address of company	Name or location of plant	Number and type of ovens available 1/		Annual coke capacity (net tons)
		Machine drawn	Hand drawn	
<u>VIRGINIA (Con.)</u>				
Hawthorne Coke & Mining Co. P. O. Box 566 Norton, Va.	Hawthorne	.....	50	24,000
Norton Coal Co. Norton, Va.	Norton	92	.....	51,000
Stonega Coke & Coal Co. Big Stone Gap, Va.	Pine Branch	180	.....	114,000
<u>WEST VIRGINIA</u>				
Allied Chemical Corp. 40 Rector St. New York 6, N. Y.	Carbondale	.....	102	52,000
Preston County Coke Co. Cascade, W. Va.	Cascade	171	23	92,800
Donegan Coal & Coke Co. 530 Fifth Ave. New York 36, N. Y.	Fenwick	.....	48	24,000
Allied Chemical Corp. 40 Rector St. New York 6, N. Y.	Harwood	83	83	88,000
Total		7,862	820	5,020,400

^{1/} Ovens reported in existence Dec. 31, 1958, whether idle or active.

TABLE 9. - Beehive-coke ovens reconstructed and abandoned in the United States in 1958 and number in existence at end of year, by States

State	Plants in existence Dec. 31	Ovens									Abandoned or dismantled during year	Rebuilt or repaired	In course of recon-struction Dec. 31
		In existence Dec. 31		In operating condition Dec. 31		Not in operating condition Dec. 31							
		Number	Annual coke capacity (net tons)	Number	Annual coke capacity (net tons)	Number	Annual coke capacity (net tons)						
Kentucky	1	193	120,000	193	120,000	.....	.....	.....	.....	.....	.....	.....	
Pennsylvania ...	43	7,316	4,284,600	4,527	2,770,700	2,789	1,513,900	.....	2	722	.....	.....	
Utah .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	297	.....	.....	
Virginia	5	663	359,000	596	328,800	67	30,200	.....	180	.....	7	.....	
West Virginia ..	4	510	256,800	205	101,000	305	155,800	.....	.....	.....	2	.....	
Total 1958 ...	53	8,682	5,020,400	5,521	3,320,500	3,161	1,699,900	.....	182	1,019	9	.....	
Total 1957 ...	58	9,519	5,503,200	6,737	4,012,700	2,782	1,490,500	.....	465	1,605	18	.....	

1/ Idle and not expected to resume production; removed from list of available ovens.

1/ Idle and not expected to resume production; removed from list of available ovens.